GoldStar

Service Manual

GSP-308

BELT DRIVE TURNTABLE

GSP-308

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SV 5-121B

CAUTION NOTICE

At the SCHEMATIC DIAGRAM, the exclamation point within an equilateral triangle is intended to alert the user on the presence of fire and shock hazard. During servicing of this appiance, these exchanged replacement parts must have identical characteristics as PARTS LIST offered and recommended by GOLD STAR CO., LTD.

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DESIGNATION OF PARTS

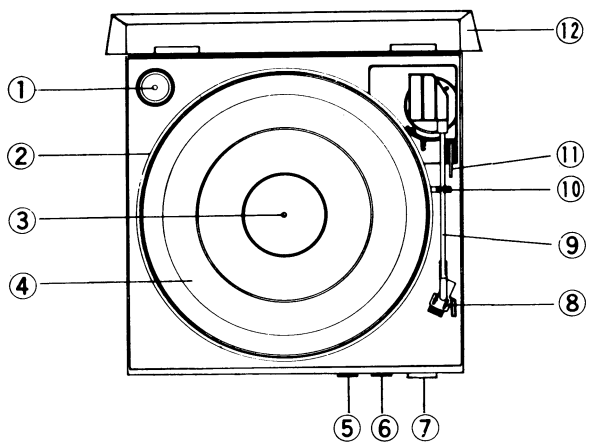


Fig. 1

1. 45RPM Adaptor
2. Platter
3. Center Shaft
4. Rubber Mat
5. Speed Selector 33 1/3 R.P.M.
6. Speed Selector 45 R.P.M.
7. Reject Button
8. Head Shell/Cartridge
9. Tone arm
10. Arm Rest
11. Cueing Lever
12. Dust Cover

SPECIFICATIONS

* **Turntable**	Auto return belt drive system
Motor :	D.C. motor
Speeds :	33-1/3 and 45 R.P.M.
Cueing device	UP/DOWN with damped lifter
Wow & Flutter :	0.1% (JIS WRMS)
Rumble :	More than 55dB (DIN-B)
Turntable Platter :	Aluminium alloy die-cast, 295mm diameter.
* **Tone Arm**	Dynamic balance type
Effective length :	210 mm
Over hang:	15 mm
Offset angle :	23 Deg
* **Cartridge (Option)**	Moving magnet type (Model: Moving magnet AT-3601 Audio Technica)
Frequency response :	20-20,000 Hz
Output voltage :	4-6mV
Channel balance :	Within 3dB at 1KHz
Channel separation :	More than 18dB at 1KHz
Load resistance :	47K ohm
Tracking force :	2g
* **General**	
Automatic function :	Auto return
Power source :	220V/50Hz
Dimensions :	348mm(W) x 325mm(D) x 92mm(H)
Weight :	4Kg
Power Consumption :	4W
Accessories	45 RPM adapter

Lubrication of the mechanism is not required. However, whenever a unit is brought in for adjustment or repair, always use good common sense. . . clean any dust or dirt from mechanical parts and if moving parts do seem to bind, check for dirt. If necessary, add a very fine film of light-weight specially formulated lubricant.

ADJUSTMENT

1. Pitch Control Range Adjustment

   1) Set Pitch Control knob to its mechanical center.
   2) Select required speed.
   3) Adjust semifix resistor (see Fig. 2) with small minus driver until speed becomes rating
   4) Repeat for second speed.

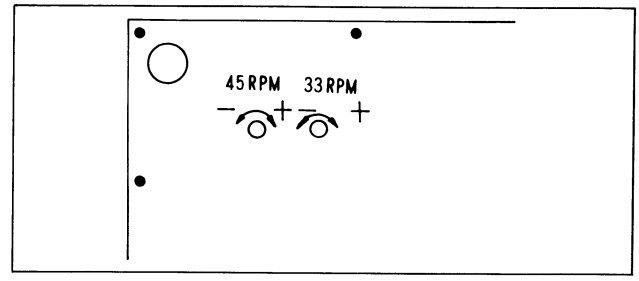


Fig. 2

2. Auto Return-Range Adjustment

   1) If Tone Arm returns to early or does not return at all, open the botton cover and adjust the auto-returen point as follows.
   2) Lock Tone Arm to the Arm Rest and turn adj. screw (Fig. 3.)
      A: Clockwise ⇒ Autoreturn Point will be later.
      B: Counterclockwise ⇒ Autoreturn Point will be earlier.

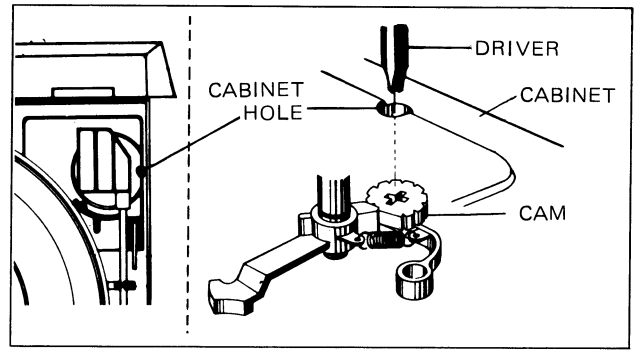


Fig. 3

STYLUS REPLACEMENT

The life expectance of a diamond stylus is approximately 300-500 hours, although it depends greatly on the cleanliness of the record and stylus. With this as a guide, it should be replaced before it becomes worn, or it will damage your records. For an inspection consult your dealer because it is not possible to check a stylus tip by eye. If your perceive distortion when playing records though the stylus is clean, it may be possible that the stylus tip is damaged. Before taking off the cartridge put on the stylus guard.
The stylus tip is replaced by grasping the stylus holder and pulling it away from the body of the cartridge. The new stylus tip is then inserted by pushing it into the receptacle.

Note: Upon replacement of the stylus be sure that the AC power is switched off or that the volume of the amplifier is turned to minimum or 0.

WARNING : DEPENDING UPON THE HUMIDITY IN YOUR LOCAL AREA, THE DUST COVER HAS A TENDENCY TO BUILD UP STATIC CHARGE WHICH COULD PULL THE TONEARM UPWARD BECAUSE OF ELECTRICAL ATTRACTION. IF THIS OCCURS, SPRAY THE DUST COVER WITH A CLING-FREE PRODUCT AND WIPE IT WITH A CLOTH. THIS WILL NEUTRALIZE THE ELECTROSTATIC CHARGE AND IT WILL INSURE FLAWLESS OPERATION OF YOUR TURNTABLE.

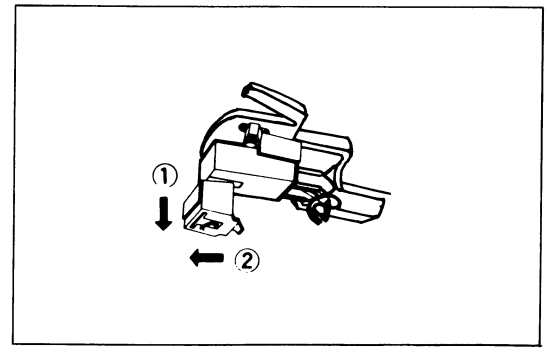


Fig. 4

CONNECTION

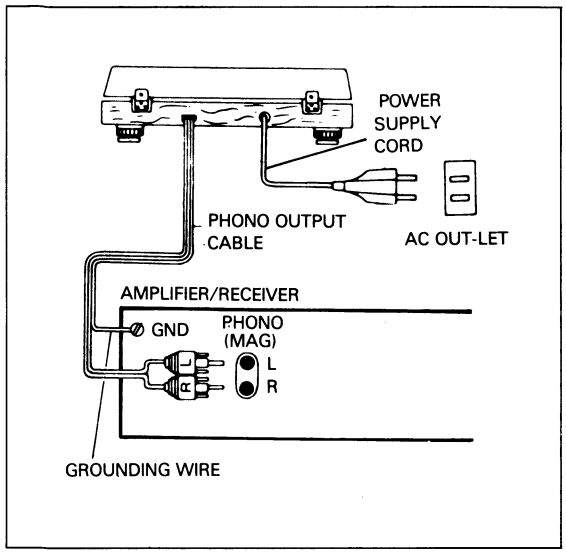


Fig. 5

1. Connect the audio cables to the PHONO inputs of you amplifier. Use the red plug for the right channel (R) and the white plug for the left channel (L). Connect the ground wire to the GND terminal on your amplifier.
   Make certain that the ground wire is securely connected to the ground terminal. A loose connection will produce hum in the speaker.

2. Plug in the AC power cord.

CARTRIDGE REPLACEMENT

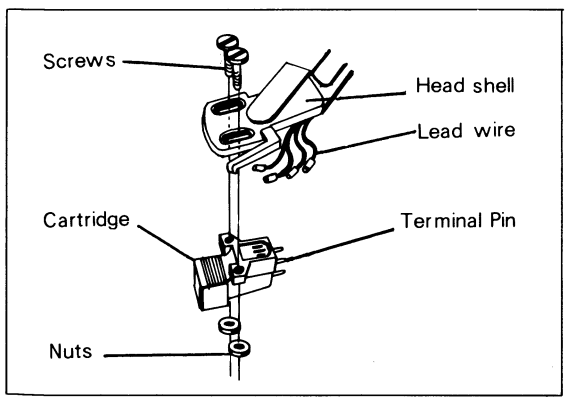


Fig. 6

Follow cartridge manufacturer's instructions for replacement of cartridge when necessary.
Replacement cartridge: AT-3601 (AUDIO TECHNICA)

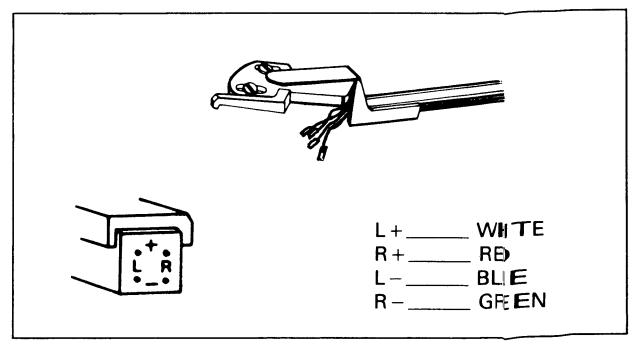


Fig. 7

1. The terminals on the accessory headshell are aligned as shown. Check the location and polarity of each of the cartridge terminal pins and the; connect the lead wires, taking care not to get the polarities mixed up.

2. Attach the cartridge height of the headshell using the screws, nuts and washers.

3. Adjust the position of the cartridge so that the stylus and the connector section of the headshell are 36 mm apart and tighten up the screws. Make sure that the cartridge does not tilt to one side when you attach it.

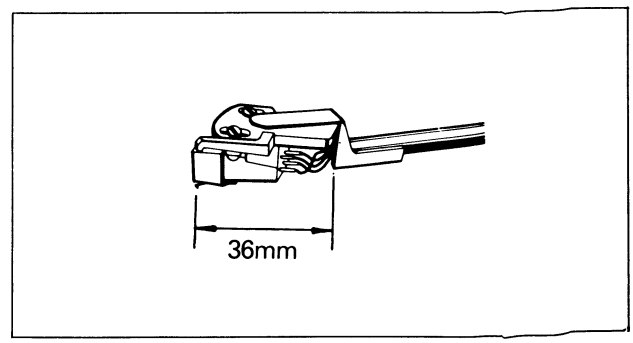


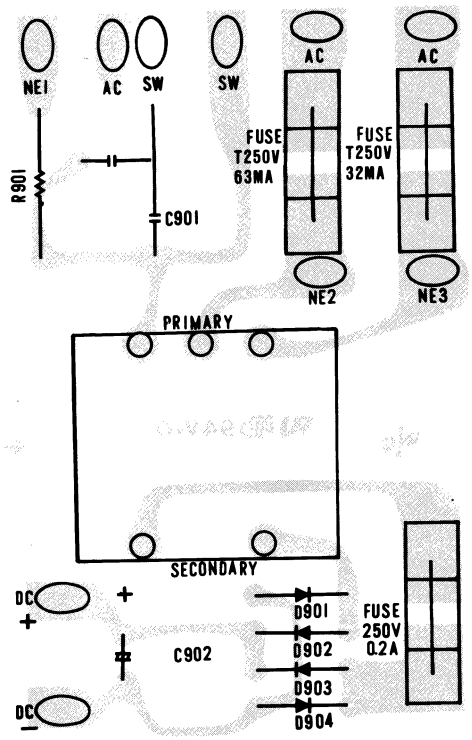
Fig. 8

TROUBLESHOOTING GUIDE

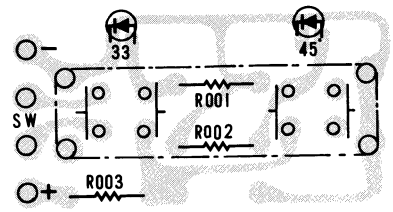
NO.	FAULT	CAUSE	CORRECTION
1	Turntable Speed	1) No voltage to turntable	Check power supply outlet. Check power cord and power fuse in electronic controlled Models.
	a) Will not start: Nos, 1,2,3,4,6 7 and 8	2) Motor bearings binding or frozen.	Check assembly for mechanical damage, Repair, lubricate or replace as indicated.
	b) Turns slow: Nos. 2,3,5,6 and 9	3) Fuse open in electronic models. 4) Drive belt defective or missing.	Replace fuse, reapir electronics as required. Determine cause of defect and correct. Replace belt.
		5) Oil on belt.	Determine cause of oil, clean or replace belt.
	c) Turns fast: Nos. 6 and 9	6) Circuit defect in electronic control models.	Troubleshoot and repair, Refer to circuit Diagram
		7) Defective switch.	Replace switch.
	d) Speed changes without apparent cause: Nos. 2,4,5,6 and 10	8) Wrong supply voltage.	Check input supply rating on turntable. Correct supply voltage condition.
		9) Speed control was adjusted improperly.	Set turntable into operation. Adjust VR 1 (33 1/3) and VR2 (45)
		10) Two or more records on turntable, one record warped.	Remove Warped record.
2.	Pick-up Height	1) Worn or damaged cams or levers.	Inspect for worn or damaged parts. Replace and lubricate as required.
	a) Arm does not lift of record on return cycle:	2) Bent or damaged components.	Repair or replace.
		3) Improper lift adjustment.	Inspect for damaged or missing parts. Repair, replace and relubricate as necessary.
	b) Arm lifter (cueing control) does not lift arm: Nos. 1,2, and 3. c) Insufficient or excessive lift: Nos. 1,2, and 3. Pickup Lowering Position	Arm lowering mechanism damaged or binding.	Inspect to determine cause of damage, replace parts as required. Relubricate.
3	Abnormal Sound a) Excessive noise: Nos. 1,2,3 and 4.	1) Ground lead is not connected.	Connect properly to the amplifier's ground terminal.
		2) Tracking force is not correct.	Refer to "TRACKING FORCE ADJUSTMENT" on page 2.
	b) Sound is distorted. Nos. 2,3,4,5 and 6.	3) Dust or dirt has collected on the stylus tip.	Clean the stylus tip with a soft brush.
		4) Dust or dirt has collected on the record.	Clean the record with a good quality cleaner.
	c) Intermittent sound: Nos. 2,3,4,5 and 7.	5) Stylus is worn.	Replace with new stylus.
		6) Amplifiers tone controls set too high.	Set tone controls to lower position.
	d) No sound: Nos. 8	7) Record is scratched or warped.	Replace record.
		8) Phono cables are not connected properly.	Connect cables securely to the PHONO input jacks on the amplifier (See Instruction Manual Page. 3).

P.C. BOARD AND WIRING

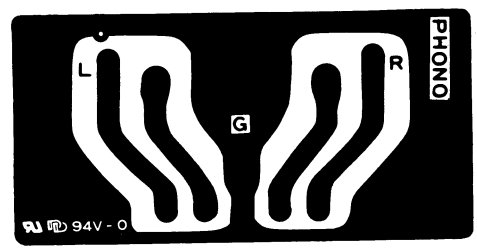
POWER P.C.B (PART NO : 513M012A)



SPEED P.C.B (PART NO: 513M014A)



PHONO P.C.B (PART NO.: 513M013A)

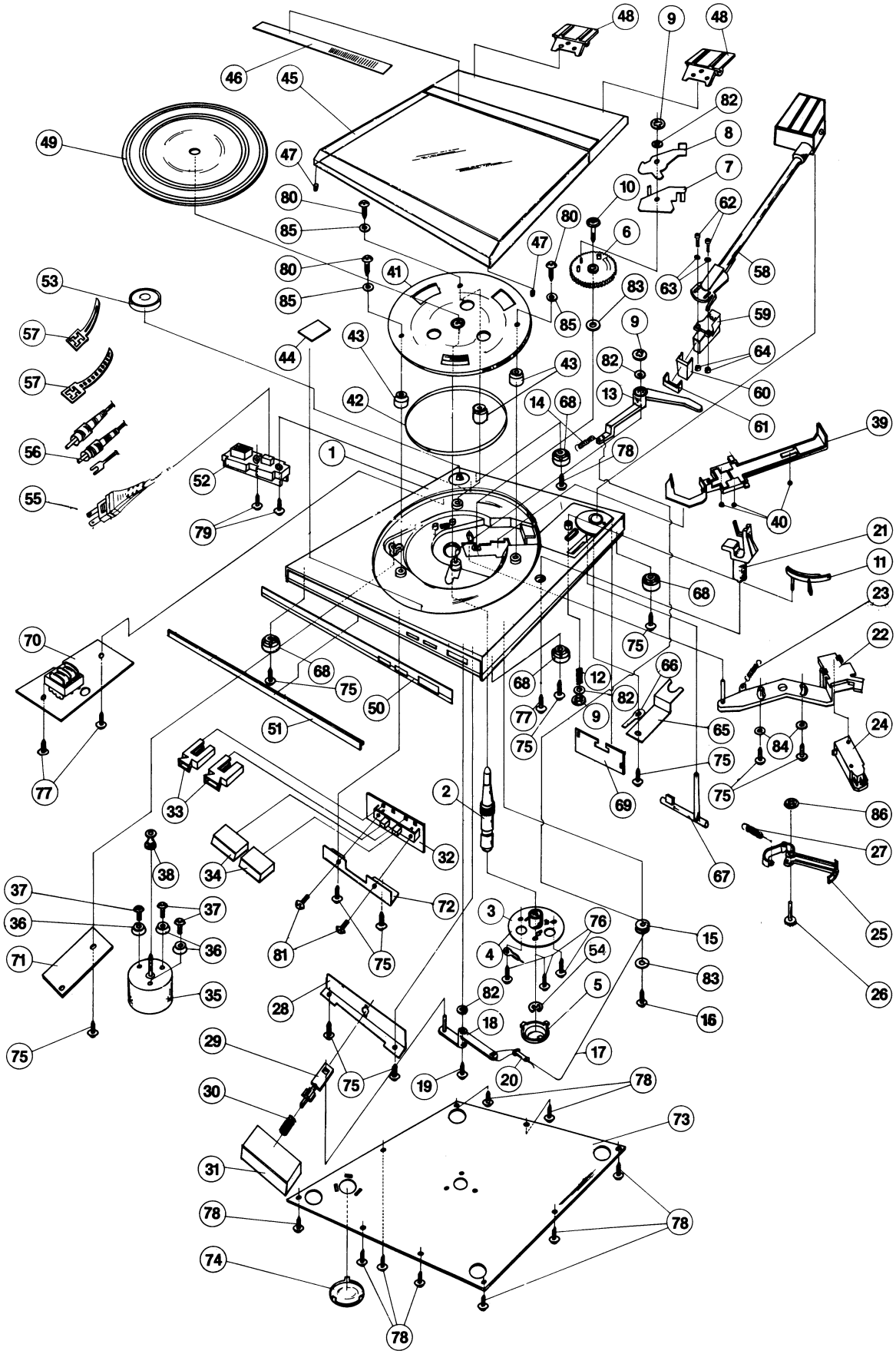


ELECTRICAL PARTS LIST

NO.	DESCRIPTION	SPECIFICATION	PART NO.	Q'TY
	P.C.B-POWER ASS'Y			
1	P.C.B-POWER	97 x 63	513M012A	1
2	TRANS-POWER	BM-8202	641M004A	1
3	C-ELECTROLYTIC	1000μF/16V	CE108001	1
4	C-POLYESTER-FILM	0.01μF/250V	CPIM-001A	1
5	D-RECTIFIED	1N4001	652-005A	4
6	CORD-POWER		682-002A	1
7	FUSE CLIP		586-001C	4

NO.	DESCRIPTION	SPECIFICATION	PART NO.	Q'TY
	P.C.B-SPEED ASS'Y			
1	P.C.B-SPEED	52 x 27	513M014A	1
2	SWITCH-PUSH	SUV-31A	555M001A	1
3	R-CARBON-FILM	1.2K 1/8W	RD122J06	3
4	LAMP-LED	DL-1LR	582M003A	2
	P.C.B-PHONO ASS'Y			
1	P.C.B-PHONE	30 x 60	513M013A	1
2	CORD-PHONO		682M008A	1
	UPPER CABINET ASS'Y			
1	MOTOR ASS'Y	BFF2R90T	414M007A	1
2	S/W-MICRO	AH-4700	558M003A	1

EXPLODED VIEW

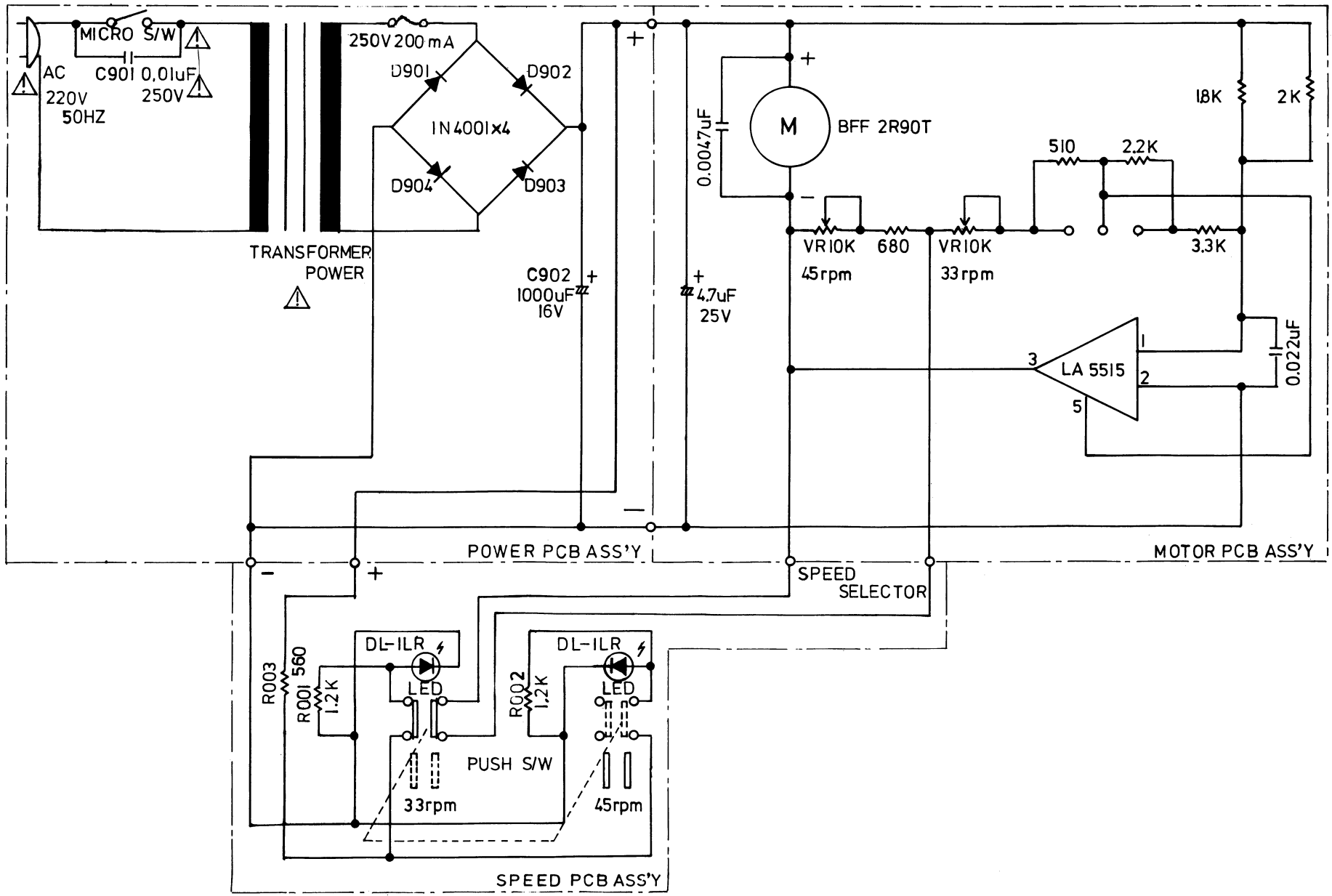


MECHANICAL PARTS LIST

NO.	DESCRIPTION	PART NO.	Q'TY
1	CABINET-UPPER	213M016A	1
2	CENTER SHAFT ASS'Y	423M025A	1
	BRACKET ASS'Y		1
3	CENTER SHAFT	321M019A	1
4	TERMINAL GROUND	563M003A	1
5	CAP-SHAFT	276M010A	1
6	RING GEAR	435M001A	1
7	CLUTCH GUIDE	337M002A	1
8	CLUTCH PLATE	337M001A	1
9	C.S WASHER	354M016A	3
10	RING GEAR SHAFT	423M024A	1
11	ELEVATION ARM	368M010A	1
12	ELEVATION SPRING	442M044A	1
13	CLUTCH LEVER	333M005A	1
14	CLUTCH SPRING	442M047A	1
15	ROLLER	434M001A	1
16	ROLLER SHAFT	423M026A	1
17	STRING	328M009A	1
18	REJECT REVER	333M004A	1
19	SCREW-SET	353M018A	1
20	EYELET	346M001A	1
21	ARM STAND	263M003A	1
22	CONTROL ARM	386M011A	1
23	CONTROL ARM SPRING	442M045A	1
24	MICRO SWITCH	558M003A	1
25	FEED ARM	386M012A	1
26	FEED ARM-CAM	374M002A	1
27	FEED ARM SPRING	442M048A	1
28	REJECT B.K.T	321M020A	1
29	REJECT HOLDER	324M020A	1
30	RETURN SPRING	442M046A	1
31	KNOB "A"	273M015A	1
32	SPEED P.C.B	513M014A	1
33	L.E.D. HOLDER	324M021A	1
34	KNOB "B"	273M106A	1
35	MOTOR	414M007A	1
36.	MOTOR CUSHION	447M029A	3
37.	SCREW-MOTOR SETTING	353M017A	3
38	MOTOR PULLEY	432M011A	1
39	ACTUATING ARM	386M009A	1
40	STEEL BALL	344M004A	3
41	PLATTER	413M003A	1
42	BELT	451M008A	1
43	PILLAR-PLATTER	413M004A	3

NO.	DESCRIPTION	PART NO.	Q'TY
44	LAMP COVER	221M029A	1
45	DUST COVER	448M001A	1
46	PLATE, DUST COVER	253M001A	1
47	CUSHION, DUST COVER	447M030A	2
48	HINGE ASS'Y	395M011A	2
49	RUBBER MAT	231M004A	1
50	PLATE FRONT	256M007A	1
51	DECORATION PLATE	251M014A	1
52	CORD HOLDER	324M022A	1
53	45 RPM ADAPTOR	591M004A	1
54	E-RING	WED2200P	1
55	POWER CORD	682-002A	1
56	PHONO CORD	682M008A	1
57	BAND-CORD	328M005A	2
58	TONE ARM ASS'Y	552M104A	1
59	CARTRIDGE	526M004A	1
60	STYLUS	526M005A	1
61	STYLUS CAP	526M006A	1
62	SCREW	353M019A	2
63	POLY WASHER	354M010A	2
64	NUT	353M019A	2
65	TONE ARM STOPPER	334M012A	1
66	TERMINAL GROUND	563M003A	1
67	CUEING LEVER	261M003A	1
68	RUBBER FOOT	477M002A	4
69	PHONO P.C.B	513M013A	1
70	POWER P.C.B	513M012A	1
71	MOTOR P.C.B	513M015A	1
72	SWITCH BRACKET	321M021A	1
73	BOTTOM COVER	221M027A	1
74	MOTOR COVER	221M028A	1
75	SCREW TAP WPH	TRQ1836J	1
76	SCREW-TAP WPH	TRQ2036J	3
77	SCREW-TAP WPH	TRQ1841J	3
78	SCREW-TAP WPH	TRQ1836J	9
79	SCREW-TAP WPH	TRQ1843J	2
80	SCREW-TAP WPH	TRQ2244J	3
81	SCREW-PS	MPC1826J	2
82	WASHER, FLAT	WPA1800J	2
83	WASHER, FLAT	WPA2000J	4
84	WASHER, FLAT	WPA1800J	2
85	WASHER, FLAT 8m	354M017A	3

SCHEMATIC DIAGRAM



WIRING DIAGRAM